

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A robot apparatus ~~capable of~~ for performing autonomous motion based on inner states ~~and/or or~~ external stimuli, comprising

expression means, having a plurality of expressive units, for ~~capable of being~~ orthogonally expressed independently and orthogonally producing a plurality of expressions of ~~one another;~~

correlating means for correlating a plurality of orthogonal states, which are based on said inner states ~~and/or or~~ external stimuli, with at least one of said expressive units;

performing one or more reflective behaviors based on external stimuli;

determining that the one or more reflective behaviors are associated with a single schema; and

control means for controlling said expression means for representing the plural orthogonal states in parallel, using the correlated expressive units and the one or more reflective behaviors.

2. (Currently Amended) The robot apparatus according to claim 1

wherein said control means control said expression means using one or more of the expressive units having parameters variably controlled responsive to each expressive element

of said inner states.

3. (Original) The robot apparatus according to claim 1
wherein said expression means includes a light radiating device and
wherein the plural expressive units, capable of orthogonal expressions
independently of one another, include two or more of color hue, saturation, intensity and patterns
of light emission.

4. (Currently Amended) The robot apparatus according to claim 3, wherein
the robot apparatus has an~~having the~~ appearance simulating an animal, and wherein said light
radiating device is provided at a location corresponding to an eye of the robot apparatus~~thereof~~.

5. (Currently Amended) The robot apparatus according to claim 1
wherein said expressive means ~~is~~ includes an uttering means unit and
wherein the plural expressive units, capable of orthogonal expressions
independently of one another, include two or more of the sound pitch, sound volume and rhythm.

6. (Currently Amended) The robot apparatus according to claim 1
wherein said correlating means outputs said correlation by control commands
having a different in the priority rating sequence thereof;
wherein upon said control means in case of issuance of plural control commands,
having a different priority rating, in the priority sequence thereof prioritizing the control
command having a higher in the priority rating sequence thereof.

7. (Currently Amended) A robot apparatus for selecting and executing at least one of a plurality of motions, comprising:

expression means, having expressive units variably controlled by a parameter; for producing a plurality of expressions;

command issuing means for issuing a control command on motion selection, said control command being a command ~~such a one~~ in which said expressive units ~~variably controlled by said parameter~~ are correlated with the selected motion;

means for performing one or more reflective behaviors based on external stimuli;

means for determining that the one or more reflective behaviors are associated with a single schema; and

control means for controlling said ~~expressive-expression~~ means by said control command;

said control command having a priority rating sequence;

said control means on issuance of plural control commands having a different in the priority rating sequence controlling said ~~expressive-expression~~ means in accordance with the control command having a higher in the priority rating sequence and the one or more reflective behaviors.

8. (Currently Amended) The robot apparatus according to claim 7

wherein, if a control command having a higher in the priority rating sequence than a control command currently controlling the expression means ~~now in operation~~ is issued, said control means ~~discontinues-interrupts~~ the expressions to control the expression means in

accordance with the control command having a higher priority rating~~in the priority sequence~~.

9. (Currently Amended) The robot apparatus according to claim 8

wherein said control means re-initiates the interrupted expressions ~~at a time point~~
when the expression related to the control command having a higher priority rating
end~~expressions under said control command higher in the priority sequence have come to a~~
~~close~~.

10. (Currently Amended) The robot apparatus according to claim 7

wherein said command issuing means further comprises:
is a plurality of behavior stating modules stating the motions of a robot body;
wherein when one of the said behavior stating module, when selected, issuing
modules is selected, the selected behavior stating module issues a control command of the
priority sequence having a priority rating that matches~~matched to the motion of the robot body~~.

11. (Currently Amended) The robot apparatus according to claim 10

wherein ~~the~~a control command issued by the behavior stating module selected on
the basis of a command from outside the robot is has a higher in the priority sequence~~generating~~ than
~~the~~a control command issued by the behavior stating module selected on the basis of ~~the~~an
inner state of the robot or ~~the~~a state of recognition.

12. (Original) The robot apparatus according to claim 7
wherein said expression means include plural orthogonal expressive means.

13. (Currently Amended) A method for expression by a robot apparatus
capable of performing autonomous motions based on inner states ~~and/or~~ or external stimuli, said
method comprising:

~~a correlating step of correlating~~ a plurality of orthogonal states, which are based
on said inner states ~~and/or~~ or external stimuli, with at least one of a plurality of expressive units,
which are owned by expression means and which are capable of being orthogonally expressed
independently of one another;

performing one or more reflective behaviors based on external stimuli;

determining that the one or more reflective behaviors are associated with a single
schema; and

~~a control step of controlling~~ said expression means for representing the plural
orthogonal states in parallel, using the correlated expressive units and the one or more reflective
behaviors.

14. (Currently Amended) The method for expression by a robot apparatus
according to claim 13, further comprising:

~~wherein, in said control step, controlling~~ said expression means ~~is controlled by~~
expressive elements, the parameters of ~~which the expression means~~ are variably controlled
responsive to respective expressive elements of said inner states.

15. (Currently Amended) The method for expression by a robot apparatus according to claim 13

wherein, ~~in said correlating step, said correlation~~ the correlation step further comprises:

outputting the correlation is output by control commands, the control commands having a priority rating different in the priority sequence; and

~~wherein if a plurality of control commands different in the priority sequence are issued in said control step, prioritizing the control command having a higher rating in the priority sequence is prioritized.~~

16. (Currently Amended) A method for expression by a robot apparatus in which at least one of a plurality of motions is selected and executed, said method comprising:

a command issuing step of issuing, on motion selection, a control command in which an expressive unit variably controlled by a parameter owned by expression means is correlated with the selected motion;

performing one or more reflective behaviors based on external stimuli;

determining that the one or more reflective behaviors are associated with a single schema; and

a control step of controlling said expression means by said control command;

said control command having a priority ~~sequence~~ rating;

said expression means being controlled in said control step by a control command having a higher in the priority rating and the one or more reflective behaviors sequence when a

plurality of control commands different in the priority sequence are issued.

17. (Currently Amended) The method for expression by a robot apparatus according to claim 16

wherein if, in said control step, a control command having a higher in the priority rating sequence than the control command controlling said expression means in the expressing operation is issued, the expression is ~~discontinued~~ interrupted and the expression means is controlled by the control command having the higher in the priority sequence rating.

18. (Currently Amended) (Currently Amended) The method for expression by a robot apparatus according to claim 17

wherein, in said control step, the ~~expressions discontinued~~ interrupted expression is re-initiated ~~at a time point when the expression corresponding to the control command~~ having a higher in the priority rating ends sequence has come to a close.